In re Patent Application of: MONK ET AL.

Serial No. 10/718,546

Serial No. 10/718,546 Filed: 11/24/2003

IN THE CLAIMS

1. (currently amended) An <u>internet protocol network testing</u> apparatus, comprising:

a plurality of network analysis devices, each network
analysis device operable to conduct tests on a different segment
between nodes of a distributed internet protocol network;

a graphical user interface providing a link to network related measurements by <u>the</u> network analysis devices, to present a test including

a visual aggregation of measurement results from two or more of the plurality of network analysis devices;

perceptibly correlated network-related measurements by two or more of the <u>plurality of</u> network analysis devices through a selectable graphical display of the network analysis devices, and

a selectable graphical display of at least one networkrelated measurement for each selected network analysis device;

wherein, in response to user selection of the two or more of the network analysis devices, and in response to user selection of the at least one network-related measurement, from the selectable graphical display, the graphical user interface causes the two or more of the network analysis devices and the at least one network related measurement to be added to the test; and

wherein the perceptibly correlated network-related measurements are visual correlations as a top-level test view of the test and selectable to navigate to lower test levels of detailed network-related measurement views of each network analysis device.

(currently amended) The apparatus of claim 1, wherein the network analysis devices are heterogeneous, and the graphical user interface presents as the perceptible correlation correlated

MONK ET AL.

Serial No. 10/718,546 Filed: 11/24/2003

graphs of network-related measurements from the heterogeneous devices as a heterogeneous test, thereby allowing a new measurement of two or more <u>adjacent</u> network segments including the heterogeneous devices.

- 3. (original) The apparatus of claim 1, wherein the graphical user interface displays a vertically oriented window, and displays in the window a hierarchical icon control tree of selectable parent-child icons corresponding, respectively, to the test and the network analysis device for the test.
- 4. (original) The apparatus of claim 3, wherein child icons of the test parent icon correspond to a test results summary, to a test configuration, and to the test network analysis devices that each include child icons corresponding to results of the at least one measurement from each network analysis device and to a configuration of each network analysis device.
- 5. (original) The apparatus of claim 3, wherein a selectable parent icon of the tree corresponds to real-time measurement collections from the network analysis devices to be added into the test.
- 6. (original) The apparatus of claim 3, wherein a selectable parent icon of the tree corresponds to the network analysis devices to launch a graphical user interface to manage the network analysis devices for the test.
- 7. (original) The apparatus of claim 1, wherein the at least one network-related measurement for each selected network analysis device is an existing collection of network-related measurements.
- 8. (original) The apparatus of claim 1, wherein the selectable

MONK ET AL.

Serial No. 10/718,546 Filed: 11/24/2003

graphical display of the network analysis devices comprises graphical tab dialogues of analysis device selection, analysis device configuration, analysis device measurement selection, and analysis device measurement configuration, allowing selection and configuration of analysis devices added into the test.

- 9. (original) The apparatus of claim 1, wherein the measurement results are visually correlated according to parameters selected from a time line, a threshold, and a trend.
- 10. (original) The apparatus of claim 1, wherein the selectable graphical display of the network analysis devices comprises a list of available network analysis devices, a list of network analysis devices added into the test, and selection and removal graphical display buttons to add and remove an available network analysis device to/from the list of added network analysis devices.
- 11. (original) The apparatus of claim 10, wherein the selectable graphical display of the at least one network-related measurement comprises a list of available network-related measurements for each network analysis device in the list of added network analysis devices.
- 12. (original) The apparatus of claim 1, wherein the selectable graphical display of the at least one network-related measurement comprises selectable graphical displays of measurement configurations for each network analysis device measurement.

13. Cancelled

14. (original) The apparatus of claim 4, wherein a selectable parent icon of the tree corresponds to a test manager managing a

MONK ET AL.

Serial No. 10/718,546 Filed: 11/24/2003

plurality of tests and including a plurality of child test icons.

- 15. (currently amended) The apparatus of claim 1, wherein <u>for the visual aggregation of measurement results</u>, the perceptibly correlated network related measurements are visual correlations and the graphical user interface presents a plurality of tests according to a time line as visually aggregated test results for each test and each aggregated test result is selectable in each time line time period to navigate to each test as the visually correlated network-related measurements at each time period in the time line.
- 16. (previously presented) The apparatus of claim 1, wherein the graphical user interface comprises:
- a test manager managing creation, update and deletion of the test, $% \left(1\right) =\left(1\right) \left(1\right)$

an agent manager managing creation, selection, and removal of the network analysis devices in the test;

an agent network interface configuration manager managing selection and configuration of network interfaces a network analysis device added in the test; and

an agent measurement configuration manager managing selection, configuration, and removal of a network-related measurement on a selected network interface for the network analysis device added in the test.

- 17. (currently amended) A distributed computer network <u>testing</u> system, comprising:
- a plurality of heterogeneous computer agents on a network_each computer agent and performing a heterogeneous network-related measurements—on a different segment between nodes of the computer network; and
 - an apparatus in communication with the heterogeneous

MONK ET AL.

Serial No. 10/718,546 Filed: 11/24/2003

computer agents on the network and providing a graphical user interface providing a link to the heterogeneous network-related measurements to manage a heterogeneous test including a visual correlation of one or more heterogeneous network-related measurements from two or more of the heterogeneous computer agents;

wherein, in response to user selection of the heterogeneous computer agents via the graphical user interface, and in response to user selection of the heterogeneous network-related measurements via the graphical user interface, the graphical user interfaces causes the two or more of the network analysis devices and the at least one network-related measurement to be added to the heterogeneous test; and

wherein the perceptibly correlated network-related
measurements are visual correlations as a top-level test view of
the test and selectable to navigate to lower test levels of
detailed network-related measurement views of each network
analysis device.

- 18. (currently amended) A computer in network communication with a plurality of computer agents providing network related measurements of different segments of the network, the computer comprising:
- a programmed computer processor providing a graphical user interface, the graphical user interface providing a link to the network related measurements provided by the computer agents, to present a test as a including:
- a visual aggregation of measurement results from two or more of the plurality of network analysis devices in adjacent segments;

perceptibly correlated network related measurements by two or more of the computer agents through a selectable graphical display of the computer agents, and

MONK ET AL.

Serial No. 10/718,546 Filed: 11/24/2003

a selectable graphical display of a least one network related measurement for each selected computer agent; wherein, in response to user selection of the two or more of the computer agents, and in response to user selection of the at least one network related measurement, from the selectable graphical displays, the graphical user interface causes the two or more of the computer agents and the at least one network related measurement to be added to the test; and wherein the perceptibly correlated network-related measurements are visual correlations as a top-level test view of the test and selectable to navigate to lower test levels of detailed network-related measurement views of each network analysis device.

19. (currently amended) A method, comprising:

presenting a selectable graphical display of known heterogeneous network analysis devices, each analysis device on a different segment between nodes of a network, to add into a test; selecting a plurality of the analysis devices;

presenting a selectable graphical display of known networkrelated measurements corresponding to each selected network analysis device;

selecting one of the network-related measurements;
presenting a graphical user interface to the test for by
displaying;

a visual aggregation of the selected network-related measurement results from two or more of the plurality of the selected network analysis devices;

a visual correlation of the selected network-related measurements from the <u>selected</u> heterogeneous network analysis devices; <u>and</u>

<u>a visual representation of the selected network-related</u> measurement from one of the network analysis devices.